

1 What is claimed is:

2
3 1. A sticker handling apparatus for use in lumber stacking with a sticker in-feed
4 conveyor and a fork arm with a sticker tray connected thereto, the apparatus comprising:
5 a sticker support bracket configured to support at least a portion of a sticker; and,
6 an actuating assembly operatively connected to the sticker support bracket and
7 configured to move the sticker support bracket, the actuating assembly comprising:
8 a first actuator configured to move the sticker support bracket in a first
9 dimension; and,
10 a second actuator configured to move the sticker support bracket in a second
11 dimension, wherein the first actuator and the second actuator are independently
12 controllable.

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14 2. The apparatus of claim 1, wherein an upper surface is defined on the fork arm, the
15 apparatus further comprising an overhead rake-off device configured to be moved between
16 a raised clear position and a lowered strip position, and further configured to strip the sticker
17 from the sticker tray when in the lowered strip position and during retraction of the fork arm,
18 the rake-off device comprising a roller operatively mounted thereon, wherein the roller is
19 configured to contact the upper surface of the fork arm and to roll thereon, thereby
20 supporting at least a portion of the rake-off device, and thereby facilitating vertical alignment
21 and guidance of the rake-off device while stripping the sticker from the sticker tray.

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23 3. The apparatus of claim 1, and wherein the sticker support bracket has a first end and
24 an opposite distal second end, and wherein the sticker support bracket is substantially
25 resiliently deflectable, whereby the first end is resiliently movable relative to the second end.

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27 4. The apparatus of claim 3, and wherein the sticker support bracket is fabricated from
28 a resiliently flexible material.

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30 5. The apparatus of claim 4, and wherein the sticker support bracket is fabricated from
31 a material comprising urethane.

1 6. The apparatus of claim 3, the sticker support bracket comprising:
2 a substantially rigid upper portion configured to contact the sticker, wherein the first
3 end of the sticker support bracket is defined on the upper portion;
4 a substantially rigid lower portion configured to be connected with the actuating
5 assembly, wherein the second end of the sticker support bracket is defined on the lower
6 portion; and,
7 a joint member which operatively connects the upper portion to the lower portion,
8 wherein the joint member is resiliently flexible, whereby the first end is resiliently movable
9 relative to the second end.

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11 7. The apparatus of claim 1, and wherein the sticker support bracket has a first end and
12 an opposite distal second end, and wherein a sticker cradle area is defined on the first end
13 between two spaced and substantially parallel horns which longitudinally extend from the
14 first end, and which are separated by a substantially flat sticker support surface.

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16 8. The apparatus of claim 7, and wherein each of the horns is substantially wedge-
17 shaped and is tapered substantially evenly toward respective extreme termini, thereby
18 rendering horns substantially symmetrical to one another.

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20 9. The apparatus of claim 1, the actuating assembly further comprising a substantially
21 stationary base, wherein:
22 the first actuator is operatively connected to the base and supported thereby;
23 the first actuator, during operation thereof, remains substantially stationary relative to
24 the base;
25 the second actuator is operatively connected between the first actuator and the
26 sticker support bracket;
27 operation of the first actuator causes movement of the second actuator and the
28 sticker support bracket relative to the base in the first dimension; and,
29 operation of the second actuator causes movement of the sticker support bracket
30 relative to the base in the second dimension.

1 10. The apparatus of claim 1, and wherein selective actuation of at least one of the first
2 actuator and the second actuator causes the sticker support bracket to lift the sticker from
3 the sticker in-feed conveyor, and to place the sticker on the sticker tray.
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5 11. The apparatus of claim 10, and wherein further selective actuation of at least one of
6 the first actuator and the second actuator causes the sticker support bracket to remove the
7 sticker from the sticker tray.
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9 12. The apparatus of claim 11, and wherein further selective actuation of at least one of
10 the first actuator and the second causes the sticker support bracket to place the sticker
11 back onto the sticker in-feed conveyor.
12

13 13. The apparatus of claim 12, and wherein further selective actuation of at least one of
14 the first actuator and the second actuator causes the sticker support bracket to place the
15 sticker on the sticker in-feed conveyor.
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17 14. The apparatus of claim 1, and further comprising:
18 a substantially stationary base;
19 a support member movably supported by the base, wherein the first actuator is
20 configured to move the support member relative to the base in the first dimension;
21 a carriage member that is movably supported by the support member and configured
22 to move therewith relative to the base, wherein the second actuator is configured to move
23 the carriage member relative to the support member in the second dimension, and wherein
24 the sticker support bracket is supported by the carriage member.
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1 15. The apparatus of claim 1, and further comprising:

2 a substantially stationary base;

3 a carriage member movably supported by the base, wherein the first actuator is
4 configured to move the carriage member relative to the base in the first dimension;

5 a support member that is movably supported by the carriage member and configured
6 to move therewith relative to the base, wherein the second actuator is configured to move
7 the support member relative to the carriage member in the second dimension, and wherein
8 the sticker support bracket is supported by the support member
9

10 16. The apparatus of claim 1, and wherein during movement of the sticker support
11 bracket by the actuating assembly:

12 the sticker support bracket contacts the sticker;

13 the sticker support bracket lifts the sticker from the sticker in-feed conveyor; and,

14 there is no substantial angular movement of the sticker support bracket.
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16 17. The apparatus of claim 1, and wherein during movement of the sticker support
17 bracket by the actuating assembly:

18 the sticker support bracket contacts the sticker;

19 the sticker support bracket lifts the sticker from the sticker in-feed conveyor;

20 the sticker is released from the sticker support bracket and thereby placed onto the
21 sticker tray; and,

22 there is no substantial angular movement of the sticker support bracket.
23

24 18. The apparatus of claim 1, and wherein during movement of the sticker support
25 bracket by the actuating assembly:

26 the sticker support bracket contacts the sticker;

27 the sticker support bracket lifts the sticker from the sticker in-feed conveyor; and,

28 there is no substantial angular movement of the sticker.
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1 19. The apparatus of claim 1, and wherein during movement of the sticker support
2 bracket by the actuating assembly:

3 the sticker support bracket contacts the sticker;

4 the sticker support bracket lifts the sticker from the sticker in-feed conveyor;

5 the sticker is released from the sticker support bracket and thereby placed onto the
6 sticker tray; and,

7 there is no substantial angular movement of the sticker tray.
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9 20. The apparatus of claim 1, and wherein:

10 the first dimension is substantially linear; and,

11 the second dimension is substantially linear.
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